CLAIMS

What is claimed is:

1. A computer-readable medium having stored thereon a data structure comprising:

an instrumentation declaration comment containing data representing a cross-hierarchical instrumentation entity; and

an input port mapping comment containing data representing a simulation event that is input into said cross-hierarchical instrumentation entity to generate a cross-hierarchical simulation event.

2. The computer-readable medium of claim 1, wherein said input port mapping comment further comprises:

an instance identifier field containing data representing a hierarchical list of design entities in which said simulation event occurs; and

an event identifier field containing data representing an instrumentation entity that generates said simulation event.

3. The computer-readable medium of claim 2, wherein said instance identifier field further comprises:

data representing a highest level design entity in which said cross-hierarchical instrumentation entity is instantiated;

data representing a lowest level design entity in which said simulation event occurs; and

data representing intermediate design entities between said highest level design entity and said lowest level design entity.

4. The computer-readable medium of claim 2, wherein said instance identifier field further includes data representing a list of design entities in descending hierarchical order.

5. The computer-readable medium of claim 2, wherein said event identifier field further comprises:

a first event identifier sub-field containing data representing an instance of said instrumentation entity; and

a second event identifier sub-field containing data representing an event type; and

a third event identifier sub-field containing data representing an instance of said event.

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6. A method for instrumenting a cross-hierarchical simulation event, wherein said cross-hierarchical simulation event is a function of a first simulation event residing at a first level of simulation model hierarchy and a second simulation event residing at a second level of simulation model hierarchy, wherein said first level of simulation model hierarchy is not at a lower level of said simulation model hierarchy than said second level of simulation model hierarchy, said method comprising:

defining a cross-hierarchical instrumentation entity within said first level of simulation model hierarchy;

connecting a first input of said instrumentation entity to said first simulation event and connecting a second input of said instrumentation entity to said second simulation event.

7. The method of claim 6, further comprising generating a cross-hierarchical simulation event within said cross-hierarchical instrumentation entity utilizing said first simulation event and said second simulation event.

8. The method of claim 6, wherein said connecting step further comprises identifying a list of design entities in which said simulation event occurs.

9. The method of claim 6, wherein said connecting step further comprises identifying an instrumentation entity instantiated within said second level of simulation model hierarchy that generates said second simulation event.